

REMARKS

Claims 1-11, 13-18, 21-32, 34-39, 41, 44-52, 54-56, 76, 77, and 96 are pending in this application.

Applicants have amended claims 1, 4, 10, 11, 13, 15-18, 21, 26, 31, 32, 34, 35, 38, 39, 41, 44, 52, 54-56, 76, and 96, and have canceled claims 12, 19, 20, 33, 40, 42, 43, 53, 57-75, and 78-95. In addition, Applicants have made minor changes to the specification and have provided a new Abstract of the Disclosure. These changes do not introduce any new matter.

In response to the Examiner's comments regarding the certified copies of the priority documents, Applicants note that the subject application is a national phase filing under 35 U.S.C. § 371 of International Application No. PCT/JP01/02968, and that the certified copies have been received by the International Bureau, as indicated in the attached Form PCT/IB/304. Under these circumstances, it is Applicants' understanding that certified copies of the priority documents do not have to be submitted to the U.S. Patent and Trademark Office. If this is not the case, Applicants respectfully request that the Examiner indicate as such in the next Office Action.

In response to the objection to the specification, Applicants have addressed the issues raised by the Examiner. In particular, Applicants have changed the Title of the Invention to "Control of Distributed Printers Using Virtual Printer Driver Execute Module." Next, Applicants have provided a new Abstract of the Disclosure that complies with MPEP § 608.01(b). Finally, Applicants have amended the specification to correct the informalities cited by the Examiner. In view of these changes, Applicants respectfully request that the objection to the specification be withdrawn.

Applicants respectfully request reconsideration of the rejection of claims 13-20, 35-43, 54-58, and 79-96 under 35 U.S.C. § 101 as being directed toward non-statutory subject matter. Applicants have amended certain of these claims along the lines suggested by the

Examiner, and has canceled other of these claims, as indicated above in the Listing of Claims. Regarding claim 96, which defines a computer program, Applicants note that the recent decision of the Board of Appeals and Interferences in *Ex parte Lundgren*, 76 USPQ2d 1385 (Bd. Pat. App. & Int. 2005), contradicts the Examiner's position that computer program claims are not statutory subject matter under 35 U.S.C. § 101. In light of the *Lundgren* decision and the changes made herein, Applicants respectfully request that the rejection under 35 U.S.C. § 101 be withdrawn.

Applicants respectfully request reconsideration of the rejection of claims 1, 4, 5, and 11 under 35 U.S.C. § 102(e) as being anticipated by *Kato* (U.S. Patent No. US 6,760,118 B1). As will be explained in more detail below, the *Kato* reference does not disclose each and every feature of independent claims 1 and 11, as amended herein.

Applicants have amended independent claim 1 to specify that the distributed printing control apparatus includes a printer driver storage module (see the specification at page 30, line 24, to page 31, line 5), a virtual printer driver execute module (see the specification at page 32, line 24, to page 35, line 21, and page 51, line 11, to page 52, line 6; see also Figures 3 and 10), a distribute module (see the specification at page 36, line 23, to page 37, line 15, and page 53, line 19, to page 54, line 11; see also Figures 4 and 11), and an output control module (see the specification at page 37, line 16, to page 38, line 26, and page 56, line 10 to page 57, line 5; see also Figures 4 and 12). Applicants have amended independent claim 11 so that the distributed printing control method defined therein includes the steps implemented by the modules specified in apparatus claim 1.

The *Kato* reference divides print data in units of pages. If the data to be printed contains color information, then the data is sent to a color printer for printing. If the data does not contain color information, then the data is sent to a monochromatic printer. On the other hand, the apparatus specified in amended claim 1 uses a virtual printer driver execute module

to convert print data into intermediate print data, and to distribute the intermediate print data to respective printers. In the configuration shown by *Kato*, a corresponding printer driver is used only so that the divided print data is sent to a suitable printer for printing. As such, the *Kato* reference does not disclose either an apparatus that includes the features specified in amended claim 1 or a method that includes the features specified in amended claim 11.

Accordingly, for at least the foregoing reasons, claims 1 and 11, as amended herein, are patentable under 35 U.S.C. § 102(e) over *Kato*. Claims 4 and 5, each of which ultimately depends from claim 1, are likewise patentable under 35 U.S.C. § 102(e) over *Kato* for at least the same reasons set forth above regarding claim 1.

Applicants respectfully request reconsideration of the rejection of claims 2, 3, 10, 12-17, 20, 59-66, 70-72, 74, 76-86, 88, 90-92, 94, and 96 under 35 U.S.C. § 103(a) as being unpatentable over the combination of *Kato* in view of *Yacoub* (U.S. Patent No. US 6,552,813 B2) (Applicants note that certain of the claims included in this rejection have been canceled herein). As will be explained in more detail below, the combination of *Kato* in view of *Yacoub* would not have suggested to one having ordinary skill in the art the subject matter defined in independent claims 1, 13, 76, and 96, as amended herein.

Considering first independent claim 1, from which claims 2, 3, and 10 ultimately depend, the deficiencies of the *Kato* reference relative to the subject matter defined in amended claim 1 are discussed above in connection with the anticipation rejection of claim 1. The *Yacoub* reference is directed toward a network printing system in which another high-performance printer is selected from the network if an error signal is returned. In particular, if the most appropriate printer, which is selected for a required print job, returns an error signal, another high-performance printer, which is a virtual printer, is selected from the network for the required job. The *Yacoub* reference, however, is not configured to distribute a piece of print data to a plurality of printers as in the claimed subject matter. As such, the *Yacoub*

reference does not cure the above-discussed deficiencies of the *Kato* reference relative to the subject matter defined in amended claim 1. Accordingly, independent claim 1, as amended herein, is patentable under 35 U.S.C. § 103(a) over the combination of *Kato* in view of *Yacoub*. Claims 2, 3, and 10, each of which ultimately depends from claim 1, are likewise patentable under 35 U.S.C. § 103(a) over the combination of *Kato* in view of *Yacoub* for at least the reason that they depend from claim 1.

Turning to independent claim 13, Applicants have amended claim 13 so that the computer recordable medium defined therein includes computer-executable instructions for causing a computer to perform the steps implemented by the modules specified in apparatus claim 1. As such, Applicants submit that the arguments set forth above regarding amended claims 1 and 11 also apply to amended claim 13. Accordingly, independent claim 13, as amended herein, is patentable under 35 U.S.C. § 103(a) over the combination of *Kato* in view of *Yacoub*. Claims 14-17, each of which ultimately depends from claim 13, are likewise patentable under 35 U.S.C. § 103(a) over the combination of *Kato* in view of *Yacoub* for at least the reason that they depend from claim 13.

Shifting to independent claim 76, Applicants have amended this method claim to specify “making a resulting print obtained from the alternative printer substantially equivalent to a resulting print expected from the printer with the trouble.” Neither the *Kato* reference nor the *Yacoub* reference discloses or suggests this feature. Thus, for at least this reason, the combination of *Kato* in view of *Yacoub* would not have suggested to one having ordinary skill in the art the subject matter defined in amended claim 76. Accordingly, independent claim 76, as amended herein, is patentable under 35 U.S.C. § 103(a) over the combination of *Kato* in view of *Yacoub*. Claim 77, which depends from claim 76, is likewise patentable under 35 U.S.C. § 103(a) over the combination of *Kato* in view of *Yacoub* for at least the same reasons set forth regarding claim 76.

Addressing now independent claim 96, Applicants have amended this computer program claim so that it corresponds to method claim 76. As such, Applicants submit that the arguments set forth above regarding amended claim 76 also apply to amended claim 96. Accordingly, independent claim 96, as amended herein, is patentable under 35 U.S.C. § 103(a) over the combination of *Kato* in view of *Yacoub*.

Applicants respectfully request reconsideration of the rejection of claims 6 and 7 under 35 U.S.C. § 103(a) as being unpatentable over *Kato* in view of *Petchenkine et al.* (U.S. Patent No. US 6,483,524 B1). Claims 6 and 7 ultimately depend from claim 1. The deficiencies of the *Kato* reference relative to the subject matter specified in amended claim 1 are discussed above. The *Petchenkine et al.* reference does not cure the above-discussed deficiencies of the *Kato* reference relative to the subject matter specified in amended claim 1. Accordingly, for at least this reason, claims 6 and 7 are patentable under 35 U.S.C. § 103(a) over the combination of *Kato* in view of *Petchenkine et al.*

Applicants respectfully request reconsideration of the rejection of claims 8, 18, and 19 under 35 U.S.C. § 103(a) as being unpatentable over the combination of *Kato* in view of *Petchenkine et al.* and further in view of *Yacoub* (Applicants note that claim 19 has been canceled herein). Claim 8 ultimately depends from independent claim 1, and claim 18 ultimately depends from independent claim 13. For the reasons discussed above, neither the *Petchenkine et al.* reference nor the *Yacoub* reference cures the deficiencies of the *Kato* reference relative to the subject matter defined in claims 1 and 13, as amended herein. Accordingly, for at least the same reasons set forth for the applicable independent claim, claims 8 and 18 are patentable under 35 U.S.C. § 103(a) over the combination of *Kato* in view of *Petchenkine et al.* and *Yacoub*.

Applicants respectfully request reconsideration of the rejection of claim 9 under 35 U.S.C. § 103(a) as being unpatentable over the combination of *Kato* in view of *Barry et al.*

(U.S. Patent No. US 6,606,165 B1). Claim 9 depends from independent claim 1. The *Barry et al.* reference does not cure the above-discussed deficiencies of the *Kato* reference relative to the subject matter defined in claim 1, as amended herein. Accordingly, claim 9 is patentable under 35 U.S.C. § 103(a) over the combination of *Kato* in view of *Barry et al.* for at least the reason that this claim depends from claim 1.

Applicants respectfully request reconsideration of the rejection of claims 21-23, 27, 29, and 33 under 35 U.S.C. § 103(a) as being unpatentable over the combination of *Kato* in view of *Shimada* (U.S. Patent No. US 6,654,136 B2) (Applicants note that claim 33 has been canceled herein). As will be explained in more detail below, the combination of *Kato* in view of *Shimada* would not have suggested to one having ordinary skill in the art the subject matter defined in independent claim 21, as amended herein.

Applicants have amended claim 21 to specify, in addition to the print data allocation module and the output data control module, a printer driver storage module and a virtual printer driver execute module, which performs the functions specified in the claim.

As discussed above, the *Kato* reference discloses a configuration in which a corresponding printer driver is used only so that the divided print data is sent to a suitable printer for printing. There is no disclosure or suggestion in the *Kato* reference regarding a virtual printer driver execute module that performs the functions specified in amended claim 21.

The *Shimada* reference discloses that a multi-printer controller 66 distributes print data prepared with a single printer driver 16 to respective printers (see column 4, lines 55-65, and column 6, lines 50-54). Nothing in the *Shimada* reference, however, discloses or suggests the configuration specified in amended claim 21. In particular, the *Shimada* reference does not disclose or suggest that when a plurality of printers are of the same type, collecting information with regard to the performance of that particular type of printer from

the printer driver of corresponding to that type, deciding performance information with regard to a virtual printer from the collected information of the performance of the printer, and obtaining intermediate print data adequate for the virtual printer from the collected information of the performance of the printer. As such, the combination of *Kato* in view of *Shimada* would not have suggested to one having ordinary skill in the art the subject matter defined in amended independent claim 21.

Accordingly, independent claim 21, as amended herein, is patentable under 35 U.S.C. § 103(a) over the combination of *Kato* in view of *Shimada*. Claims 22, 23, 27, and 29, each of which ultimately depends from claim 21, are likewise patentable under 35 U.S.C. § 103(a) over the combination of *Kato* in view of *Shimada* for at least the same reasons set forth regarding claim 21.

Applicants respectfully request reconsideration of the rejection of claims 24, 25, and 40 under 35 U.S.C. § 103(a) as being unpatentable over the combination of *Kato* and *Shimada*, and further in view of *Roosen et al.* (U.S. Patent No. US 6,856,413 B1) (Applicants note that claim 40 has been canceled herein). Claims 24 and 25 ultimately depend from independent claim 21. The *Roosen et al.* reference does not cure the above-discussed deficiencies of the *Kato* and *Shimada* references relative to the subject matter defined in amended claim 21. Accordingly, claims 24 and 25 are patentable under 35 U.S.C. § 103(a) over the combination of *Kato* in view of *Shimada* and *Roosen et al.* for at least the reason that these claims depend from claim 21.

Applicants respectfully request reconsideration of the rejection of claims 26, 31, 32, 34-37, 39, and 41-43 under 35 U.S.C. § 103(a) as being unpatentable over the combination of *Kato* and *Shimada*, and further in view of *Yamamoto et al.* (U.S. Patent No. US 6,553,431 B1) (Applicants note that claims 42 and 43 have been canceled herein).

Considering first claim 26, this claim depends from independent claim 21. As the *Yamamoto et al.* reference does not cure the above-discussed deficiencies of the *Kato* and *Shimada* references relative to the subject matter defined in amended claim 21, claim 26 is patentable under 35 U.S.C. § 103(a) over the combination of *Kato* in view of *Shimada* and *Yamamoto et al.* for at least the reason that this claim depends from claim 21.

Turning to independent claims 31, 32, 34, 35, and 41, Applicants have amended these independent claims along the lines discussed above regarding independent claim 21. As the *Yamamoto et al.* reference does not cure the above-discussed deficiencies of the *Kato* and *Shimada* references relative to amended claim 21, Applicants submit that the *Yamamoto et al.* reference also does not cure the deficiencies of the *Kato* and *Shimada* references relative to independent claims 31, 32, 34, 35, and 41, as amended herein. Accordingly, claims 31, 32, 34, 35, and 41, as amended herein, are patentable under 35 U.S.C. § 103(a) over the combination of *Kato* in view of *Shimada* and *Yamamoto et al.*

Addressing now claims 36, 37, and 39, these claims depend from independent claim 35. Accordingly, claims 36, 37, and 39 are patentable under 35 U.S.C. § 103(a) over the combination of *Kato* in view of *Shimada* and *Yamamoto et al.* for at least the reason that they depend from claim 35.

Applicants respectfully request reconsideration of the rejection of claims 28 and 30 under 35 U.S.C. § 103(a) as being unpatentable over the combination of *Kato* in view of *Shimada* and *Yacoub*. Claims 28 and 30 are patentable under 35 U.S.C. § 103(a) over the combination of *Kato* in view of *Shimada* and *Yacoub* for at least the reason that each of these claims ultimately depends from independent claim 21.

Applicants respectfully request reconsideration of the rejection of claim 38 under 35 U.S.C. § 103(a) as being unpatentable over the combination of *Kato*, *Shimada*, *Yamamoto et al.*, and *Roosen et al.* Claim 38 is patentable under 35 U.S.C. § 103(a) over the combination

of *Kato*, *Shimada*, *Yamamoto et al.*, and *Roosen et al.* for at least the reason that this claim ultimately depends from independent claim 35.

Applicants respectfully request reconsideration of the rejection of claims 44-46, 48, and 50-58 under 35 U.S.C. § 103(a) as being unpatentable over the combination of *Kato* in view of *Roosen et al.* (Applicants note that claims 53, 57, and 58 have been canceled herein).

Applicants have amended independent claim 44 to define a distributed printing control apparatus that includes a printer driver storage module, a destination of distribution specification module, a virtual printer driver execute module, an allocation determination module, a working status detection module, a display control module, and an output control module. Applicants have amended independent claims 52 and 54 along the lines just described regarding claim 44.

The combination of *Kato* in view of *Roosen et al.* would not have suggested to one having ordinary skill in the art the features of claims 44, 52, and 54, as amended herein. Accordingly, claims 44, 52, and 54, as amended herein, are patentable under 35 U.S.C. § 103(a) over the combination of *Kato* in view of *Roosen et al.* Claims 45, 46, 48, 50, and 51, each of which ultimately depends from claim 44, and claims 55 and 56, each of which ultimately depends from claim 54, are likewise patentable under 35 U.S.C. § 103(a) over the combination of *Kato* in view of *Roosen et al.* for at least the same reasons set forth above regarding the applicable independent claim.

Applicants respectfully request reconsideration of the rejection of claim 47 under 35 U.S.C. § 103(a) as being unpatentable over the combination of *Kato*, *Roosen et al.*, and *Shimada*. Claim 47, which ultimately depends from independent claim 44, is patentable over the asserted combination for at least the reason that these references would not have suggested to one having ordinary skill in the art the subject defined in independent claim 44, as amended herein.

Applicants respectfully request reconsideration of the rejection of claim 49 under 35 U.S.C. § 103(a) as being unpatentable over the combination of *Kato, Roosen et al.*, and *Sekikawa* (U.S. Patent No. US 6,498,658 B1). Claim 49, which ultimately depends from independent claim 44, is patentable over the asserted combination for at least the reason that these references would not have suggested to one having ordinary skill in the art the subject defined in independent claim 44, as amended herein.

Regarding the obviousness rejection of claims 67-69, 75, 87-89, and 95, Applicants note that these claims have been canceled herein. As such, Applicants submit that the obviousness rejection of claims 67-69, 75, 87-89, and 95 is moot.

Regarding the obviousness rejection of claims 73 and 93, Applicants note that these claims have been canceled herein. As such, Applicants submit that the obviousness rejection of claims 73 and 93 is moot.

In view of the foregoing, Applicants respectfully request reconsideration and reexamination of claims 1-11, 13-18, 21-32, 34-39, 41, 44-52, 54-56, 76, 77, and 96, as amended herein, and submit that these claims are in condition for allowance. Accordingly, a notice of allowance is respectfully requested. In the event a telephone conversation would expedite the prosecution of this application, the Examiner may reach the undersigned at (408) 749-6902. If any additional fees are due in connection with the filing of this paper, then the

Application No. 09/980,210
Amendment dated February 27, 2006
Response to Office Action mailed August 25, 2005

Commissioner is authorized to charge such fees to Deposit Account No. 50-0805 (Order No. MIPFP050).

Respectfully submitted,
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A handwritten signature in black ink, appearing to read 'P. Martine', with a long horizontal flourish extending to the right.

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PATENT COOPERATION TREATY

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NOTIFICATION CONCERNING
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(PCT Administrative Instructions, Section 411)

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Date of mailing (day/month/year) 13 June 2001 (13.06.01)	
Applicant's or agent's file reference PF04F980	IMPORTANT NOTIFICATION
International application No. PCT/JP01/02968	International filing date (day/month/year) 05 April 2001 (05.04.01)
International publication date (day/month/year) Not yet published	Priority date (day/month/year) 07 April 2000 (07.04.00)
Applicant SEIKO EPSON CORPORATION et al	

1. The applicant is hereby notified of the date of receipt (except where the letters "NR" appear in the right-hand column) by the International Bureau of the priority document(s) relating to the earlier application(s) indicated below. Unless otherwise indicated by an asterisk appearing next to a date of receipt, or by the letters "NR", in the right-hand column, the priority document concerned was submitted or transmitted to the International Bureau in compliance with Rule 17.1(a) or (b).
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<u>Priority date</u>	<u>Priority application No.</u>	<u>Country or regional Office or PCT receiving Office</u>	<u>Date of receipt of priority document</u>
07 April 2000 (07.04.00)	2000-106486	JP	01 June 2001 (01.06.01)
07 April 2000 (07.04.00)	2000-106599	JP	01 June 2001 (01.06.01)
07 April 2000 (07.04.00)	2000-107055	JP	01 June 2001 (01.06.01)
07 April 2000 (07.04.00)	2000-107231	JP	01 June 2001 (01.06.01)

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